ABSTRACT

Provided is a method for fabricating a semiconductor optical device that can be used as a reflecting semiconductor mirror or an optical filter, in which two or more types of semiconductor layers having different etch rates are alternately stacked, at least one type of semiconductor layers is selectively etched to form an air-gap structure, and an oxide or a nitride having a good heat transfer property is deposited so that the air gap is buried, whereby it is possible to effectively implement the semiconductor reflector or the optical filter having a high reflectance in a small period because of the large index contrast between the oxide or the nitride buried in the air gap and the semiconductor layer.